Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Wireless Fixed Access Local Loop Services	)	RM No. 8837
	)	
Petition for Allocation of Radio Spectrum	)	
in the 2 GHz Band for the Provision of	)	
Wireless Fixed Access Local Loop Services	)	

OPPOSITION OF THE PART 15 COALITION

The Part 15 Coalition ("the Coalition") submits this opposition to the above-referenced petition for rulemaking filed by DSC Communications Corporation ("DSC"). In its petition, DSC has asked the Commission to allocate several bands of radio spectrum between 1.3 GHz and 2.7 GHz, including the 2400-2483.5 MHz Part 15 band, on a co-primary basis for wireless local loop ("WLL") services. For the reasons set forth below, the Coalition opposes the allocation of the 2400-2483.5 MHz band for any new licensed communications services, including WLL services.

DISCUSSION

In its petition, DSC has asked the Commission to allocate radio spectrum between 1.3 GHz and 2.7 GHz, which includes the 2400-2483.5 MHz Part 15 band, on a co-primary basis for WLL services. According the DSC, the "2 GHz band"[1] is ideal for its proposed WLL system because this portion of spectrum is relatively uncongested, use of the band for WLL services would be consistent with international allocations, and allocation of the 2 GHz band for WLL services will promote US manufacturing competitiveness.[2] In fact, all three of these factors cut against grant of the DSC petition.

I. The 2.4 GHz Part 15 Band Is Highly Congested By ISM RF Emissions And Ill-Suited For Licensed WLL Services.

To begin with, DSC's claims regarding the availability of spectrum in the 2 GHz band are vastly overstated, at least with respect to the 2.4 GHz Part 15 band. The 2.4 GHz Part 15 band currently is allocated for ISM, amateur and Part 15 use. ISM

[1] DSC refers to the block of spectrum from 1.3 GHz to 2.7 GHz as the "2 GHz band." For ease of understanding, the Coalition will adopt that shorthand for purposes of this opposition. In addition, the Coalition refers herein to the 2400-2483.5 MHz band as the 2.4 GHz Part 15 band.

[2] See DSC Petition for Rulemaking at 22-24 (filed June 10, 1996).

devices in particular, including over 60 million microwave ovens in homes and businesses across the country, generate an enormous amount of RF noise in the band. Although this noise is centered at 2450 MHz, it affects the operation of radio technologies throughout the 2.4 GHz band.[3] Indeed, as the Commission recognized two years ago, "[i]t will be extremely difficult to provide a licensed service in this band because of its heavy use by ISM equipment."[4]

ISM use of the band is expected to increase in coming years. New ISM applications that operate at 2.4 GHz, particularly microwave lighting systems, are being designed and deployed throughout the US and the world. In comments filed in the Commission's recent spread spectrum proceeding, one manufacturer of microwave lighting systems warned that "the Commission [should] proceed with the utmost caution as it evaluates competing proposals for the licensing of new services in the [2.4 GHz] band .... Fusion [Systems Corporation] has been investing substantial capital in ISM production technologies and successfully selling products on a worldwide basis."[5] Such caution is warranted. Given the increasingly heavy use of the 2.4 GHz band by ISM equipment, it is unlikely that the band would be able to accommodate a licensed service such as DSC's WLL system.

Part 15 technologies, on the other hand, are particularly well suited to operate in the highly congested 2.4 GHz band. Part 15 technologies use a variety of techniques, including spread spectrum transmission, to avoid interfering signals. Recent proposals by the Commission to modify its Part 15 rules may further promote spectrum sharing by and between Part 15 technologies and ISM devices.[6] For instance, it has been suggested in that proceeding that the Commission should allow Part 15 technologies operating in the 2.4 GHz band to employ narrow beam antennas.[7] If this proposal were adopted, Part 15 technologies could be made even more robust in the face of background RF noise. In any event, however, because the radio environment in this band is not coordinated, unlicensed Part 15 technologies, not licensed services, make the highest and best use of this spectrum. Accordingly,

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[3] See Federal Communications Commission Plan for Reallocated Spectrum ("1996 Spectrum Plan") (rel. Mar. 22, 1996) at 28.

[4] FCC Report to Ronald H. Brown, Secretary, U.S. Department of Commerce, Regarding the Preliminary Spectrum Reallocation Report ("1994 FCC Report") (rel. Aug. 9, 1994) ¶ 50.

[5] Amendment of Parts 2 and 15 of the Commission's Rules Regarding Spread Spectrum Transmitters, ET Docket No. 96-8, Comments of Fusion Systems Corporation at 1 (filed June 19, 1996).

[6] See id., Notice of Proposed Rulemaking (rel. Feb. 5, 1996).

[7] See id. Comments of the Part 15 Coalition (filed June 19, 1996).

the Coalition urges the Commission to exclude future licensed services from the band, including WLL services.

II. Retaining The 2.4 GHz Band For Part 15 Use Is Consistent With International Allocations.

Similarly overbroad is DSC's claim that allocation of the 2 GHz frequency block for WLL services would be consistent with "both the short and long term initiatives being instigated by international organizations ... to produce harmonized frequency allocation plans throughout the world."[8] Many other nations, including those in the European Union, Japan, and other industrialized countries, have authorized unlicensed spread spectrum operation at 2400 MHz.[9] These allocations have, in many cases, been made in response to the policy direction set by the FCC and the success of unlicensed operations in the US. Thus, to the extent the FCC seeks to promote consistent and coherent international radio allocation rules, it should continue to make the 2.4 GHz band available for Part 15 use. Introduction of WLL services into the band would undermine that allocation.

III. Adding WLL Services To The 2400-2483.5 MHz Band Would Impair The Use Of The Band By Part 15 Technologies And Injure US Competitiveness.

Finally, DSC claims that allocation of the 2 GHz band for WLL would promote US competitiveness. This claim, too, is unfounded. In fact, DSC's proposed allocation would cost the US immeasurably in lost consumer, public safety, and business communications services that today are provided by millions of Part 15 spread spectrum devices.[10]

Although most Part 15 technologies are designed with features that allow them to withstand interfering signals, the introduction of WLL services into this band would limit dramatically the amount of spectrum available for unlicensed devices.[11] Indeed, because of the Commission's recent decision to license automatic vehicle monitoring and location monitoring services ("AVM/LMS") in the 900

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[8] DSC Petition at 22.

[9] See 1996 Spectrum Plan at 28.

[10] See Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, 9 FCC Rcd 2175, 2176 n.14 (1994).

[11] See 1994 FCC Report ¶ 39 (unlikely that unlicensed devices would be able to share the 2.4 GHz band with licensed services); Amendment of Parts 2 and 15 of the Commission's Rules to Permit Use of Radio Frequencies Above 40 GHz for New Radio Applications, 9 FCC Rcd 7078, ¶ 19 (1994) (same).

MHz Part 15 band (902-928 MHz),[12] preservation of spectrum for unlicensed use in the 2.4 GHz band is of critical importance to the future of unlicensed services. Consequently, the introduction of WLL services into the 2.4 GHz band, as proposed by DSC, would put many popular wireless technologies at risk.

Moreover, because the introduction of WLL into the 2.4 GHz band would limit the use of that band for unlicensed technologies, adoption of DSC's proposal will discourage future domestic investment in such technologies. Currently, US-based companies hold a global leadership position in the market for this equipment. If investment is driven offshore, however, the US cannot be expected to maintain this position and its competitiveness in this critical communications technology will be sacrificed. DSC's petition represents, therefore, a threat, not an opportunity, for US business.

CONCLUSION

Both NTIA and the Commission have concluded that it would be a mistake to introduce a new licensed service into the 2.4 GHz Part 15 band. Nothing in the DSC petition demonstrates otherwise. Thus, and for the reasons set forth above, the Coalition strongly opposes the petition for rulemaking filed by DSC seeking reallocation of the 2400-2483.5 MHz band for WLL services.

Respectfully submitted,

THE PART 15 COALITION

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[12] See Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, 10 FCC Rcd 4695 (1995), on recon., PR Docket No. 93-61 (rel. Mar. 21, 1995).